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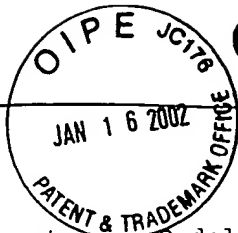
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SEQUENCE LISTING

<110> Hauptmann, Rudolph
Himmeler, Adolph
Maurer-Fogy, Ingrid
Stratowa, Christian

<120> TNF Receptors, TNF Binding Proteins and DNAs Coding for
Them

<130> 98-385-J

<140> 09/899,429

<141> 2001-07-03

<150> 09/792,356

<151> 2000-02-23

<150> 08/477,639

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<151> 1995-02-01

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<151> 1993-11-17

<150> 07/821,750

<151> 1992-01-02

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<222> (606)..(633)

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 gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga ctg gtc cct	96
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro	
20 25 30	
 cac cta ggg gac agg gag aag aga gat agt gtg tgt ccc caa gga aaa	144
His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys	
35 40 45	
 tat atc cac cct caa aat aat tcg att tgc tgt acc aag tgc cac aaa	192
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys	
50 55 60	
 gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag gat acg gac	240
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp	
65 70 75 80	
 tgc agg gag tgt gag agc ggc tcc ttc acc gct tca gaa aac cac ctc	288
Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu	
85 90 95	
 aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg	336
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val	
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 gag atc tct tct tgc aca gtg gac cgg gac acc gtg tgt ggc tgc agg	384
Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg	
115 120 125	
 aag aac cag tac cgg cat tat tgg agt gaa aac ctt ttc cag tgc ttc	432
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe	
130 135 140	
 aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc tcc tgc cag gag	480
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu	
145 150 155 160	
 aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa	528
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu	
165 170 175	
 aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg	576
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180 185 190	
 aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca	624
Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser	
195 200 205	

ggc acc aca gtg ctg ttg ccc ctg gtc att ttc ttt ggt ctt tgc ctt	672
Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu	
210 215 220	
tta tcc ctc ctc ttc att ggt tta atg tat cgc tac caa cgg tgg aag	720
Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys	
225 230 235 240	
tcc aag ctc tac tcc att gtt tgt ggg aaa tcg aca cct gaa aaa gag	768
Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu	
245 250 255	
ggg gag ctt gaa gga act act act aag ccc ctg gcc cca aac cca agc	816
Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser	
260 265 270	
ttc agt ccc act cca ggc ttc acc ccc acc ctg ggc ttc agt ccc gtg	864
Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val	
275 280 285	
ccc agt tcc acc ttc acc tcc agc tcc acc tat acc ccc ggt gac tgt	912
Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys	
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Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly	
305 310 315 320	
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Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn	
325 330 335	
ccc ctt cag aag tgg gag gac agc gcc cac aag cca cag agc cta gac	1056
Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp	
340 345 350	
act gat gac ccc gcg acg ctg tac gcc gtg gtg gag aac gtg ccc ccg	1104
Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro	
355 360 365	
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Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu	
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Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln	
385 390 395 400	
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Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala	
405 410 415	
acg ctg gag ctg ctg gga cgc gtg ctc cgc gac atg gac ctg ctg ggc	1296
Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly	
420 425 430	

tgc ctg gag gac atc gag gag gcg ctt tgc ggc ccc gcc gcc ctc ccg 1344
 Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
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 Pro Ala Pro Ser Leu Leu Arg
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 35 40 45
 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
 50 55 60
 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
 65 70 75 80
 Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
 85 90 95
 Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
 100 105 110
 Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
 115 120 125
 Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
 130 135 140
 Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
 145 150 155 160
 Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
 165 170 175
 Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
 180 185 190
 Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
 195 200 205
 Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
 210 215 220

Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
 225 230 235 240
 Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
 245 250 255
 Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
 260 265 270
 Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
 275 280 285
 Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
 290 295 300
 Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
 305 310 315 320
 Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
 325 330 335
 Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
 340 345 350
 Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
 355 360 365
 Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
 370 375 380
 Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
 385 390 395 400
 Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
 405 410 415
 Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
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 Pro Ala Pro Ser Leu Leu Arg
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			20					25					30			
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Pro	Gly	Pro	Gly	Gln	Asp	Thr	Asp	Cys	Arg	Glu	Cys	Glu	Ser	Gly	Ser	
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Phe	Thr	Ala	Ser	Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	
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Cys	Arg	Lys	Glu	Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val	Asp	
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cgg	gac	acc	gtg	tgt	ggc	tgc	agg	aag	aac	cag	tac	cgg	cat	tat	tgg	288
Arg	Asp	Thr	Val	Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	
			85					90					95			
agt	gaa	aac	ctt	ttc	cag	tgc	ttc	aat	tgc	agc	ctc	tgc	ctc	aat	ggg	336
Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn	Gly	
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acc	gtg	cac	ctc	tcc	tgc	cag	gag	aaa	cag	aac	acc	gtg	tgc	acc	tgc	384
Thr	Val	His	Leu	Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr	Cys	
		115					120					125				
cat	gca	ggg	ttc	ttt	cta	aga	gaa	aac	gag	tgt	gtc	tcc	tgt	agt	aac	432
His	Ala	Gly	Phe	Phe	Leu	Arg	Glu	Asn	Glu	Cys	Val	Ser	Cys	Ser	Asn	
	130					135					140					
tgt	aag	aaa	agc	ctg	gag	tgc	acg	aag	ttg	tgc	cta	ccc	cag	att	gag	480
Cys	Lys	Lys	Ser	Leu	Glu	Cys	Thr	Lys	Leu	Cys	Leu	Pro	Gln	Ile	Glu	
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 35 40 45

Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys
 50 55 60
 Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp
 65 70 75 80
 Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp
 85 90 95
 Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly
 100 105 110
 Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys
 115 120 125
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 TNF-BP sequence

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 Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp
 20 25 30
 tgt cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc 144
 Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly
 35 40 45
 tcc ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc 192
 Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser
 50 55 60
 aaa tgc cga aag gaa atg ggt cag gtg gag atc tct tct tgc aca gtg 240

Lys	Cys	Arg	Lys	Glu	Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val		
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Asp	Arg	Asp	Thr	Val	Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr		
				85					90					95			
tgg	agt	gaa	aac	ctt	ttc	cag	tgc	ttc	aat	tgc	agc	ctc	tgc	ctc	aat	336	
Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn		
			100					105					110				
ggg	acc	gtg	cac	ctc	tcc	tgc	cag	gag	aaa	cag	aac	acc	gtg	tgc	acc	384	
Gly	Thr	Val	His	Leu	Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr		
			115				120					125					
tgc	cat	gca	ggg	ttc	ttt	cta	aga	gaa	aac	gag	tgt	gtc	tcc	tgt	agt	432	
Cys	His	Ala	Gly	Phe	Phe	Leu	Arg	Glu	Asn	Glu	Cys	Val	Ser	Cys	Ser		
			130			135					140						
aac	tgt	aag	aaa	agc	ctg	gag	tgc	acg	aag	ttg	tgc	cta	ccc	cag	att	480	
Asn	Cys	Lys	Lys	Ser	Leu	Glu	Cys	Thr	Lys	Leu	Cys	Leu	Pro	Gln	Ile		
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Glu	Asn																

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TNF-BP sequence

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			20					25					30		

Cys	Pro	Gly	Pro	Gly	Gln	Asp	Thr	Asp	Cys	Arg	Glu	Cys	Glu	Ser	Gly
		35					40					45			

Ser	Phe	Thr	Ala	Ser	Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser
	50					55					60				

Lys	Cys	Arg	Lys	Glu	Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val
65					70					75					80

Asp	Arg	Asp	Thr	Val	Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr
				85					90					95	

Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn
			100					105					110		

Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr
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Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser
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Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile
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gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga ctg gtc cct 96
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
20 25 30

cac cta ggg gac agg gag aag aga gat agt gtg tgt ccc caa gga aaa 144
His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
35 40 45

tat atc cac cct caa aat aat tcg att tgc tgt acc aag tgc cac aaa 192
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
50 55 60

gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag gat acg gac 240
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
65 70 75 80

tgc agg gag tgt gag agc ggc tcc ttc acc gct tca gaa aac cac ctc 288
Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
85 90 95

aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg 336
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
100 105 110

gag atc tct tct tgc aca gtg gac cgg gac acc gtg tgt ggc tgc agg 384

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aag	aac	cag	tac	cgg	cat	tat	tgg	agt	gaa	aac	ctt	ttc	cag	tgc	ttc	432	
Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe		
	130					135					140						
aat	tgc	agc	ctc	tgc	ctc	aat	ggg	acc	gtg	cac	ctc	tcc	tgc	cag	gag	480	
Asn	Cys	Ser	Leu	Cys	Leu	Asn	Gly	Thr	Val	His	Leu	Ser	Cys	Gln	Glu		
145					150				155						160		
aaa	cag	aac	acc	gtg	tgc	acc	tgc	cat	gca	ggg	ttc	ttt	cta	aga	gaa	528	
Lys	Gln	Asn	Thr	Val	Cys	Thr	Cys	His	Ala	Gly	Phe	Phe	Leu	Arg	Glu		
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aac	gag	tgt	gtc	tcc	tgt	agt	aac	tgt	aag	aaa	agc	ctg	gag	tgc	acg	576	
Asn	Glu	Cys	Val	Ser	Cys	Ser	Asn	Cys	Lys	Lys	Ser	Leu	Glu	Cys	Thr		
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aag	ttg	tgc	cta	ccc	cag	att	gag	aat	gtt	aag	ggc	act	gag	gac	tca	624	
Lys	Leu	Cys	Leu	Pro	Gln	Ile	Glu	Asn	Val	Lys	Gly	Thr	Glu	Asp	Ser		
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ggc	acc	aca														633	
Gly	Thr	Thr															
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<213> Artificial Sequence

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TNF-BP sequence

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			20					25					30		

His	Leu	Gly	Asp	Arg	Glu	Lys	Arg	Asp	Ser	Val	Cys	Pro	Gln	Gly	Lys
		35					40					45			

Tyr	Ile	His	Pro	Gln	Asn	Asn	Ser	Ile	Cys	Cys	Thr	Lys	Cys	His	Lys
	50					55					60				

Gly	Thr	Tyr	Leu	Tyr	Asn	Asp	Cys	Pro	Gly	Pro	Gly	Gln	Asp	Thr	Asp
65					70				75						80

Cys	Arg	Glu	Cys	Glu	Ser	Gly	Ser	Phe	Thr	Ala	Ser	Glu	Asn	His	Leu
				85					90					95	

Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	Cys	Arg	Lys	Glu	Met	Gly	Gln	Val
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Glu	Ile	Ser	Ser	Cys	Thr	Val	Asp	Arg	Asp	Thr	Val	Cys	Gly	Cys	Arg				
		115						120					125						
Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe				
	130					135					140								
Asn	Cys	Ser	Leu	Cys	Leu	Asn	Gly	Thr	Val	His	Leu	Ser	Cys	Gln	Glu				
145					150					155					160				
Lys	Gln	Asn	Thr	Val	Cys	Thr	Cys	His	Ala	Gly	Phe	Phe	Leu	Arg	Glu				
				165					170					175					
Asn	Glu	Cys	Val	Ser	Cys	Ser	Asn	Cys	Lys	Lys	Ser	Leu	Glu	Cys	Thr				
			180					185					190						
Lys	Leu	Cys	Leu	Pro	Gln	Ile	Glu	Asn	Val	Lys	Gly	Thr	Glu	Asp	Ser				
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 <211> 549
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: recombinant
 TNF-BP sequence

<220>
 <221> CDS
 <222> (1) .. (549)

<400> 9																
atg	ctg	gtc	cct	cac	cta	ggg	gac	agg	gag	aag	aga	gat	agt	gtg	tgt	48
Met	Leu	Val	Pro	His	Leu	Gly	Asp	Arg	Glu	Lys	Arg	Asp	Ser	Val	Cys	
1				5					10					15		
ccc caa gga aaa tat atc cac cct caa aat aat tcg att tgc tgt acc																96
Pro	Gln	Gly	Lys	Tyr	Ile	His	Pro	Gln	Asn	Asn	Ser	Ile	Cys	Cys	Thr	
		20						25					30			
aag tgc cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg ggg																144
Lys	Cys	His	Lys	Gly	Thr	Tyr	Leu	Tyr	Asn	Asp	Cys	Pro	Gly	Pro	Gly	
		35					40					45				
cag gat acg gac tgc agg gag tgt gag agc ggc tcc ttc acc gct tca																192
Gln	Asp	Thr	Asp	Cys	Arg	Glu	Cys	Glu	Ser	Gly	Ser	Phe	Thr	Ala	Ser	
	50					55					60					
gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa																240
Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	Cys	Arg	Lys	Glu	
65					70					75					80	

atg ggt cag gtg gag atc tct tct tgc aca gtg gac cgg gac acc gtg	288
Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val	
85 90 95	
tgt ggc tgc agg aag aac cag tac cgg cat tat tgg agt gaa aac ctt	336
Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu	
100 105 110	
ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc	384
Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu	
115 120 125	
tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc	432
Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe	
130 135 140	
ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc	480
Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser	
145 150 155 160	
ctg gag tgc acg aag ttg tgc cta ccc cag att gag aat gtt aag ggc	528
Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly	
165 170 175	
act gag gac tca ggc acc aca	549
Thr Glu Asp Ser Gly Thr Thr	
180	

<210> 10

<211> 183

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant
TNF-BP sequence

<400> 10

Met	Leu	Val	Pro	His	Leu	Gly	Asp	Arg	Glu	Lys	Arg	Asp	Ser	Val	Cys
1				5					10					15	

Pro	Gln	Gly	Lys	Tyr	Ile	His	Pro	Gln	Asn	Asn	Ser	Ile	Cys	Cys	Thr
			20					25					30		

Lys	Cys	His	Lys	Gly	Thr	Tyr	Leu	Tyr	Asn	Asp	Cys	Pro	Gly	Pro	Gly
		35					40					45			

Gln	Asp	Thr	Asp	Cys	Arg	Glu	Cys	Glu	Ser	Gly	Ser	Phe	Thr	Ala	Ser
	50					55					60				

Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	Cys	Arg	Lys	Glu
65					70					75					80

Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val	Asp	Arg	Asp	Thr	Val
				85					90					95	

Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu
 100 105 110
 Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu
 115 120 125
 Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe
 130 135 140
 Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser
 145 150 155 160
 Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly
 165 170 175
 Thr Glu Asp Ser Gly Thr Thr
 180

<210> 11
 <211> 600
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: recombinant
 TNF-BP sequence

<220>
 <221> CDS
 <222> (1)..(600)

<400> 11
 atg ggc ctc tcc acc gtg cct gac ctg ctg ctg cca ctg gtg ctc ctg 48
 Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
 1 5 10 15
 gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga gat agt gtg 96
 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Asp Ser Val
 20 25 30
 tgt ccc caa gga aaa tat atc cac cct caa aat aat tcg att tgc tgt 144
 Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys
 35 40 45
 acc aag tgc cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg 192
 Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro
 50 55 60
 ggg cag gat acg gac tgc agg gag tgt gag agc ggc tcc ttc acc gct 240
 Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala
 65 70 75 80
 tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa tgc cga aag 288
 Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys
 85 90 95

gaa atg ggt cag gtg gag atc tct tct tgc aca gtg gac cgg gac acc	336
Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr	
100 105 110	
gtg tgt ggc tgc agg aag aac cag tac cgg cat tat tgg agt gaa aac	384
Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn	
115 120 125	
ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg acc gtg cac	432
Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His	
130 135 140	
ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc cat gca ggt	480
Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly	
145 150 155 160	
ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac tgt aag aaa	528
Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys	
165 170 175	
agc ctg gag tgc acg aag ttg tgc cta ccc cag att gag aat gtt aag	576
Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys	
180 185 190	
ggc act gag gac tca ggc acc aca	600
Gly Thr Glu Asp Ser Gly Thr Thr	
195 200	

<210> 12

<211> 200

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant
TNF-BP sequence

<400> 12

Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
1 5 10 15

Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Asp Ser Val
20 25 30

Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys
35 40 45

Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro
50 55 60

Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala
65 70 75 80

Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys
85 90 95

Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr
 100 105 110
 Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn
 115 120 125
 Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His
 130 135 140
 Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly
 145 150 155 160
 Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys
 165 170 175
 Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys
 180 185 190
 Gly Thr Glu Asp Ser Gly Thr Thr
 195 200

<210> 13
 <211> 603
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: recombinant
 TNF-BP sequence

<220>
 <221> CDS
 <222> (1)..(603)

<400> 13
 atg ggc ctc tcc acc gtg cct gac ctg ctg ctg cca ctg gtg ctc ctg 48
 Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
 1 5 10 15
 gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga ctg gtc cct 96
 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
 20 25 30
 cac cta ggg gac agg gag aag aga gat agt gtg tgt ccc caa gga aaa 144
 His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
 35 40 45
 tat atc cac cct caa aat aat tcg att tgc tgt acc aag tgc cac aaa 192
 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
 50 55 60
 gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag gat acg gac 240
 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
 65 70 75 80

tgc agg gag tgt gag agc ggc tcc ttc acc gct tca gaa aac cac ctc	288
Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu	
85 90 95	
aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg	336
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val	
100 105 110	
gag atc tct tct tgc aca gtg gac cgg gac acc gtg tgt ggc tgc agg	384
Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg	
115 120 125	
aag aac cag tac cgg cat tat tgg agt gaa aac ctt ttc cag tgc ttc	432
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe	
130 135 140	
aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc tcc tgc cag gag	480
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu	
145 150 155 160	
aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa	528
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu	
165 170 175	
aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg	576
Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr	
180 185 190	
aag ttg tgc cta ccc cag att gag aat	603
Lys Leu Cys Leu Pro Gln Ile Glu Asn	
195 200	

<210> 14
 <211> 201
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: recombinant
 TNF-BP sequence

<400> 14
Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
1 5 10 15
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
20 25 30
His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
35 40 45
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
50 55 60
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
65 70 75 80

Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	Cys	Arg	Lys	Glu	
65					70					75					80	
atg	ggc	cag	gtg	gag	atc	tct	tct	tgc	aca	gtg	gac	cgg	gac	acc	gtg	288
Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val	Asp	Arg	Asp	Thr	Val	
				85					90					95		
tgt	ggc	tgc	agg	aag	aac	cag	tac	cgg	cat	tat	tgg	agt	gaa	aac	ctt	336
Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn	Leu	
			100					105					110			
ttc	cag	tgc	ttc	aat	tgc	agc	ctc	tgc	ctc	aat	ggg	acc	gtg	cac	ctc	384
Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn	Gly	Thr	Val	His	Leu	
			115				120					125				
tcc	tgc	cag	gag	aaa	cag	aac	acc	gtg	tgc	acc	tgc	cat	gca	ggc	ttc	432
Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr	Cys	His	Ala	Gly	Phe	
			130			135					140					
ttt	cta	aga	gaa	aac	gag	tgt	gtc	tcc	tgt	agt	aac	tgt	aag	aaa	agc	480
Phe	Leu	Arg	Glu	Asn	Glu	Cys	Val	Ser	Cys	Ser	Asn	Cys	Lys	Lys	Ser	
145					150				155						160	
ctg	gag	tgc	acg	aag	ttg	tgc	cta	ccc	cag	att	gag	aat				519
Leu	Glu	Cys	Thr	Lys	Leu	Cys	Leu	Pro	Gln	Ile	Glu	Asn				
				165				170								

<210> 16

<211> 173

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant
TNF-BP sequence

<400> 16

Met	Leu	Val	Pro	His	Leu	Gly	Asp	Arg	Glu	Lys	Arg	Asp	Ser	Val	Cys
1				5					10					15	

Pro	Gln	Gly	Lys	Tyr	Ile	His	Pro	Gln	Asn	Asn	Ser	Ile	Cys	Cys	Thr
			20					25					30		

Lys	Cys	His	Lys	Gly	Thr	Tyr	Leu	Tyr	Asn	Asp	Cys	Pro	Gly	Pro	Gly
		35					40					45			

Gln	Asp	Thr	Asp	Cys	Arg	Glu	Cys	Glu	Ser	Gly	Ser	Phe	Thr	Ala	Ser
	50					55				60					

Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	Cys	Arg	Lys	Glu
65					70					75					80

Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val	Asp	Arg	Asp	Thr	Val
				85					90					95	

Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

gtg	tgt	ggc	tgc	agg	aag	aac	cag	tac	cgg	cat	tat	tgg	agt	gaa	aac	384
Val	Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn	
		115					120					125				
ctt	ttc	cag	tgc	ttc	aat	tgc	agc	ctc	tgc	ctc	aat	ggg	acc	gtg	cac	432
Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn	Gly	Thr	Val	His	
		130				135					140					
ctc	tcc	tgc	cag	gag	aaa	cag	aac	acc	gtg	tgc	acc	tgc	cat	gca	ggg	480
Leu	Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr	Cys	His	Ala	Gly	
		145			150				155					160		
ttc	ttt	cta	aga	gaa	aac	gag	tgt	gtc	tcc	tgt	agt	aac	tgt	aag	aaa	528
Phe	Phe	Leu	Arg	Glu	Asn	Glu	Cys	Val	Ser	Cys	Ser	Asn	Cys	Lys	Lys	
				165				170						175		
agc	ctg	gag	tgc	acg	aag	ttg	tgc	cta	ccc	cag	att	gag	aat			570
Ser	Leu	Glu	Cys	Thr	Lys	Leu	Cys	Leu	Pro	Gln	Ile	Glu	Asn			
			180					185					190			

<210> 18

<211> 190

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant
TNF-BP sequence

<400> 18

Met	Gly	Leu	Ser	Thr	Val	Pro	Asp	Leu	Leu	Leu	Pro	Leu	Val	Leu	Leu
1				5					10					15	

Glu	Leu	Leu	Val	Gly	Ile	Tyr	Pro	Ser	Gly	Val	Ile	Gly	Asp	Ser	Val
			20					25					30		

Cys	Pro	Gln	Gly	Lys	Tyr	Ile	His	Pro	Gln	Asn	Asn	Ser	Ile	Cys	Cys
		35					40					45			

Thr	Lys	Cys	His	Lys	Gly	Thr	Tyr	Leu	Tyr	Asn	Asp	Cys	Pro	Gly	Pro
	50					55					60				

Gly	Gln	Asp	Thr	Asp	Cys	Arg	Glu	Cys	Glu	Ser	Gly	Ser	Phe	Thr	Ala
	65				70					75					80

Ser	Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	Cys	Arg	Lys
				85					90					95	

Glu	Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val	Asp	Arg	Asp	Thr
			100					105					110		

Val	Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn
		115					120					125			

Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn	Gly	Thr	Val	His
		130				135					140				

Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly
 145 150 155 160

Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys
 165 170 175

Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn
 180 185 190

<210> 19

<211> 516

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant
 TNF-BP sequence

<220>

<221> CDS

<222> (1)..(516)

<400> 19

atg	gat	agt	gtg	tgt	ccc	caa	gga	aaa	tat	atc	cac	cct	caa	aat	aat	48
Met	Asp	Ser	Val	Cys	Pro	Gln	Gly	Lys	Tyr	Ile	His	Pro	Gln	Asn	Asn	
1				5				10					15			

tcg	att	tgc	tgt	acc	aag	tgc	cac	aaa	gga	acc	tac	ttg	tac	aat	gac	96
Ser	Ile	Cys	Cys	Thr	Lys	Cys	His	Lys	Gly	Thr	Tyr	Leu	Tyr	Asn	Asp	
			20					25					30			

tgt	cca	ggc	ccg	ggg	cag	gat	acg	gac	tgc	agg	gag	tgt	gag	agc	ggc	144
Cys	Pro	Gly	Pro	Gly	Gln	Asp	Thr	Asp	Cys	Arg	Glu	Cys	Glu	Ser	Gly	
		35					40					45				

tcc	ttc	acc	gct	tca	gaa	aac	cac	ctc	aga	cac	tgc	ctc	agc	tgc	tcc	192
Ser	Phe	Thr	Ala	Ser	Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	
	50					55					60					

aaa	tgc	cga	aag	gaa	atg	ggt	cag	gtg	gag	atc	tct	tct	tgc	aca	gtg	240
Lys	Cys	Arg	Lys	Glu	Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val	
65					70				75						80	

gac	cgg	gac	acc	gtg	tgt	ggc	tgc	agg	aag	aac	cag	tac	cgg	cat	tat	288
Asp	Arg	Asp	Thr	Val	Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	
				85				90						95		

tgg	agt	gaa	aac	ctt	ttc	cag	tgc	ttc	aat	tgc	agc	ctc	tgc	ctc	aat	336
Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn	
			100					105					110			

ggg	acc	gtg	cac	ctc	tcc	tgc	cag	gag	aaa	cag	aac	acc	gtg	tgc	acc	384
Gly	Thr	Val	His	Leu	Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr	
		115					120					125				

tgc cat gca ggt ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt	432
Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser	
130 135 140	

aac tgt aag aaa agc ctg gag tgc acg aag ttg tgc cta ccc cag att	480
Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile	
145 150 155 160	

gag aat gtt aag ggc act gag gac tca ggc acc aca	516
Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr Thr	
165 170	

<210> 20

<211> 172

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant
TNF-BP sequence

<400> 20

Met Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn
1 5 10 15

Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp
20 25 30

Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly
35 40 45

Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser
50 55 60

Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val
65 70 75 80

Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr
85 90 95

Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn
100 105 110

Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr
115 120 125

Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser
130 135 140

Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile
145 150 155 160

Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr Thr
165 170

Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn	
				140					145					150		
ggg	acc	gtg	cac	ctc	tcc	tgc	cag	gag	aaa	cag	aac	acc	gtg	tgc	acc	713
Gly	Thr	Val	His	Leu	Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr	
			155					160					165			
tgc	cat	gca	ggg	ttc	ttt	cta	aga	gaa	aac	gag	tgt	gtc	tcc	tgt	agt	761
Cys	His	Ala	Gly	Phe	Phe	Leu	Arg	Glu	Asn	Glu	Cys	Val	Ser	Cys	Ser	
		170					175					180				
aac	tgt	aag	aaa	agc	ctg	gag	tgc	agg	aag	ttg	tgc	cta	ccc	cag	att	809
Asn	Cys	Lys	Lys	Ser	Leu	Glu	Cys	Arg	Lys	Leu	Cys	Leu	Pro	Gln	Ile	
		185				190					195					
gag	aat	gtt	aag	ggc	act	gag	gac	tca	ggc	acc	aca	gtg	ctg	ttg	ccc	857
Glu	Asn	Val	Lys	Gly	Thr	Glu	Asp	Ser	Gly	Thr	Thr	Val	Leu	Leu	Pro	
200					205					210					215	
ctg	gtc	att	ttc	ttt	ggg	ctt	tgc	ctt	tta	tcc	ctc	ctc	ttc	att	ggg	905
Leu	Val	Ile	Phe	Phe	Gly	Leu	Cys	Leu	Leu	Ser	Leu	Leu	Phe	Ile	Gly	
				220				225						230		
tta	atg	tat	cgc	tac	caa	cgg	tgg	aag	tcc	aag	ctc	tac	tcc	att	gtt	953
Leu	Met	Tyr	Arg	Tyr	Gln	Arg	Trp	Lys	Ser	Lys	Leu	Tyr	Ser	Ile	Val	
			235					240					245			
tgt	ggg	aaa	tcg	aca	cct	gaa	aaa	gag	ggg	gag	ctt	gaa	gga	act	act	1001
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Ser	Ala	His	Lys	Pro	Gln	Ser	Leu	Asp	Thr	Asp	Asp	Pro	Ala	Thr	Leu	
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<210> 22

<211> 371

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<220>

<223> Description of Artificial Sequence: cDNA insert of
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25

30

His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys

35

40

45

Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys

50

55

60

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp

65

70

75

80

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu

85

90

95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Ile Gly Gln Val

100

105

110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg

115

120

125

Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe

130

135

140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu

145

150

155

160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu

165

170

175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Arg

180

185

190

Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser

195

200

205

Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu

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215

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<211> 2173

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: raTNF-R8

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<221> CDS

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<400> 24

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ggac atg ggt ctc ccc atc gtg cct ggc ctg ctg ctg tca ctg gtg ctc 289
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Leu Ala Leu Leu Met Gly Ile His Pro Ser Gly Val Thr Gly Leu Val
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cct tct ctt ggt gac cgg gag aag agg gat aat ttg tgt ccc cag gga 385
Pro Ser Leu Gly Asp Arg Glu Lys Arg Asp Asn Leu Cys Pro Gln Gly
      35             40             45
aag tat gcc cat cca aag aat aat tcc atc tgc tgc acc aag tgc cac 433
Lys Tyr Ala His Pro Lys Asn Asn Ser Ile Cys Cys Thr Lys Cys His
      50             55             60
aaa gga acc tac ttg gtg agt gac tgt cca agc cca ggg cag gaa aca 481
Lys Gly Thr Tyr Leu Val Ser Asp Cys Pro Ser Pro Gly Gln Glu Thr
      65             70             75
gtc tgc gag ctc tct cat aaa ggc acc ttt aca gct tcg cag aac cac 529
Val Cys Glu Leu Ser His Lys Gly Thr Phe Thr Ala Ser Gln Asn His
      80             85             90             95
gtc aga cag tgt ctc agt tgc aag aca tgt cgg aaa gaa atg ttc cag 577
Val Arg Gln Cys Leu Ser Cys Lys Thr Cys Arg Lys Glu Met Phe Gln
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gtg gag att tct cct tgc aaa gct gac atg gac acc gtg tgt ggc tgc 625
Val Glu Ile Ser Pro Cys Lys Ala Asp Met Asp Thr Val Cys Gly Cys
      115            120            125
aag aag aac caa ttc cag cgc tac ctg agt gag acg cat ttc cag tgt 673
Lys Lys Asn Gln Phe Gln Arg Tyr Leu Ser Glu Thr His Phe Gln Cys
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Val Asp Cys Ser Pro Cys Phe Asn Gly Thr Val Thr Ile Pro Cys Lys
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gag aaa cag aac acc gtg tgt aac tgc cac gca gga ttc ttt cta agc 769
Glu Lys Gln Asn Thr Val Cys Asn Cys His Ala Gly Phe Phe Leu Ser
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gga aat gag tgc acc cct tgc agc cac tgc aag aaa aat cag gaa tgt 817
Gly Asn Glu Cys Thr Pro Cys Ser His Cys Lys Lys Asn Gln Glu Cys
      180            185            190
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Ser Gly Thr Ala Val Leu Leu Pro Leu Val Ile Phe Leu Gly Leu Cys	
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Leu Leu Phe Phe Ile Cys Ile Ser Leu Leu Cys Arg Tyr Pro Gln Trp	
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Ile Pro Ala Phe Ser Pro Asn Pro Gly Phe Asn Pro Thr Leu Gly Phe	
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Ser Thr Thr Pro Arg Phe Ser His Pro Val Ser Ser Thr Pro Ile Ser	
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Asn Pro Val Pro Ile Pro Ala Pro Val Arg Lys Trp Glu Asp Val Val	
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Gly Arg Cys Leu Arg Glu Ala His Tyr Ser Met Leu Glu Ala Trp Arg	
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ctt tgc gac atg aac ctg cgt ggc tgc ctg gag aac atc cgc gag act 1585
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Leu Glu Ser Pro Ala His Ser Ser Thr Thr His Leu Pro Arg
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<220>
<223> Description of Artificial Sequence: raTNF-R8

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35 40 45

Tyr Ala His Pro Lys Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
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Gly Thr Tyr Leu Val Ser Asp Cys Pro Ser Pro Gly Gln Glu Thr Val
65 70 75 80

Cys Glu Leu Ser His Lys Gly Thr Phe Thr Ala Ser Gln Asn His Val

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Gly	Thr	Ala	Val	Leu	Leu	Pro	Leu	Val	Ile	Phe	Leu	Gly	Leu	Cys	Leu				
	210					215					220								
Leu	Phe	Phe	Ile	Cys	Ile	Ser	Leu	Leu	Cys	Arg	Tyr	Pro	Gln	Trp	Arg				
225					230					235					240				
Pro	Arg	Val	Tyr	Ser	Ile	Ile	Cys	Arg	Asp	Ser	Ala	Pro	Val	Lys	Glu				
				245					250					255					
Val	Glu	Gly	Glu	Gly	Ile	Val	Thr	Lys	Pro	Leu	Thr	Pro	Ala	Ser	Ile				
			260					265					270						
Pro	Ala	Phe	Ser	Pro	Asn	Pro	Gly	Phe	Asn	Pro	Thr	Leu	Gly	Phe	Ser				
		275					280					285							
Thr	Thr	Pro	Arg	Phe	Ser	His	Pro	Val	Ser	Ser	Thr	Pro	Ile	Ser	Pro				
	290					295					300								
Val	Phe	Gly	Pro	Ser	Asn	Trp	His	Asn	Phe	Val	Pro	Pro	Val	Arg	Glu				
305					310				315					320					
Val	Val	Pro	Thr	Gln	Gly	Ala	Asp	Pro	Leu	Leu	Tyr	Gly	Ser	Leu	Asn				
				325					330					335					
Pro	Val	Pro	Ile	Pro	Ala	Pro	Val	Arg	Lys	Trp	Glu	Asp	Val	Val	Ala				
			340					345					350						
Ala	Gln	Pro	Gln	Arg	Leu	Asp	Thr	Ala	Asp	Pro	Ala	Met	Leu	Tyr	Ala				
		355					360				365								
Val	Val	Asp	Gly	Val	Pro	Pro	Thr	Arg	Trp	Lys	Glu	Phe	Met	Arg	Leu				
	370					375					380								
Leu	Gly	Leu	Ser	Glu	His	Glu	Ile	Glu	Arg	Leu	Glu	Leu	Gln	Asn	Gly				

385			390						395					400		
Arg	Cys	Leu	Arg	Glu	Ala	His	Tyr	Ser	Met	Leu	Glu	Ala	Trp	Arg	Arg	
				405			410				415					
Arg	Thr	Pro	Arg	His	Glu	Ala	Thr	Leu	Asp	Val	Val	Gly	Arg	Val	Leu	
				420			425				430					
Cys	Asp	Met	Asn	Leu	Arg	Gly	Cys	Leu	Glu	Asn	Ile	Arg	Glu	Thr	Leu	
				435			440				445					
Glu	Ser	Pro	Ala	His	Ser	Ser	Thr	Thr	His	Leu	Pro	Arg				
				450			455				460					

75					80					85						
tcc	ttc	acc	gct	tca	gaa	aac	cac	ctc	aga	cac	tgc	ctc	agc	tgc	tcc	521
Ser	Phe	Thr	Ala	Ser	Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	
90					95					100						
aaa	tgc	cga	aag	gaa	atg	ggg	cag	gtg	gag	atc	tct	tct	tgc	aca	gtg	569
Lys	Cys	Arg	Lys	Glu	Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val	
105					110					115						
gac	cgg	gac	acc	gtg	tgt	ggc	tgc	agg	aag	aac	cag	tac	cgg	cat	tat	617
Asp	Arg	Asp	Thr	Val	Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	
120					125					130					135	
tgg	agt	gaa	aac	ctt	ttc	cag	tgc	ttc	aat	tgc	agc	ctc	tgc	ctc	aat	665
Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn	
140					145					150						
ggg	acc	gtg	cac	ctc	tcc	tgc	cag	gag	aaa	cag	aac	acc	gtg	tgc	acc	713
Gly	Thr	Val	His	Leu	Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr	
155					160					165						
tgc	cat	gca	ggg	ttc	ttt	cta	aga	gaa	aac	gag	tgt	gtc	tcc	tgt	agt	761
Cys	His	Ala	Gly	Phe	Phe	Leu	Arg	Glu	Asn	Glu	Cys	Val	Ser	Cys	Ser	
170					175					180						
aac	tgt	aag	aaa	agc	ctg	gag	tgc	acg	aag	ttg	tgc	cta	ccc	cag	att	809
Asn	Cys	Lys	Lys	Ser	Leu	Glu	Cys	Thr	Lys	Leu	Cys	Leu	Pro	Gln	Ile	
185					190					195						
gag	aat	gtt	aag	ggc	act	gag	gac	tca	ggc	acc	aca	gtg	ctg	ttg	ccc	857
Glu	Asn	Val	Lys	Gly	Thr	Glu	Asp	Ser	Gly	Thr	Thr	Val	Leu	Leu	Pro	
200					205					210					215	
ctg	gtc	att	ttc	ttt	ggg	ctt	tgc	ctt	tta	tcc	ctc	ctc	ttc	att	ggg	905
Leu	Val	Ile	Phe	Phe	Gly	Leu	Cys	Leu	Leu	Ser	Leu	Leu	Phe	Ile	Gly	
220					225					230						
tta	atg	tat	cgc	tac	caa	cgg	tgg	aag	tcc	aag	ctc	tac	tcc	att	gtt	953
Leu	Met	Tyr	Arg	Tyr	Gln	Arg	Trp	Lys	Ser	Lys	Leu	Tyr	Ser	Ile	Val	
235					240					245						
tgt	ggg	aaa	tcg	aca	cct	gaa	aaa	gag	ggg	gag	ctt	gaa	gga	act	act	1001
Cys	Gly	Lys	Ser	Thr	Pro	Glu	Lys	Glu	Gly	Glu	Leu	Glu	Gly	Thr	Thr	
250					255					260						
act	aag	ccc	ctg	gcc	cca	aac	cca	agc	ttc	agt	ccc	act	cca	ggc	ttc	1049
Thr	Lys	Pro	Leu	Ala	Pro	Asn	Pro	Ser	Phe	Ser	Pro	Thr	Pro	Gly	Phe	
265					270					275						
acc	ccc	acc	ctg	ggc	ttc	agt	ccc	gtg	ccc	agt	tcc	acc	ttc	acc	tcc	1097
Thr	Pro	Thr	Leu	Gly	Phe	Ser	Pro	Val	Pro	Ser	Ser	Thr	Phe	Thr	Ser	
280					285					290					295	
agc	tcc	acc	tat	acc	ccc	ggg	gac	tgt	ccc	aac	ttt	gcg	gct	ccc	cgc	1145
Ser	Ser	Thr	Tyr	Thr	Pro	Gly	Asp	Cys	Pro	Asn	Phe	Ala	Ala	Pro	Arg	
300					305					310						

aga gag gtg gca cca ccc tat cag ggg gct gac ccc atc ctt gcg aca	1193
Arg Glu Val Ala Pro Pro Tyr Gln Gly Ala Asp Pro Ile Leu Ala Thr	
315 320 325	
gcc ctc gcc tcc gac ccc atc ccc aac ccc ctt cag aag tgg gag gac	1241
Ala Leu Ala Ser Asp Pro Ile Pro Asn Pro Leu Gln Lys Trp Glu Asp	
330 335 340	
agc gcc cac aag cca cag agc cta gac act gat gac ccc gcg acg ctg	1289
Ser Ala His Lys Pro Gln Ser Leu Asp Thr Asp Asp Pro Ala Thr Leu	
345 350 355	
tac gcc gtg gtg gag aac gtg ccc ccg ttg cgc tgg aag gaa ttc gtg	1337
Tyr Ala Val Val Glu Asn Val Pro Pro Leu Arg Trp Lys Glu Phe Val	
360 365 370 375	
cgg cgc cta ggg ctg agc gac cac gag atc gat cgg ctg gag ctg cag	1385
Arg Arg Leu Gly Leu Ser Asp His Glu Ile Asp Arg Leu Glu Leu Gln	
380 385 390	
aac ggg cgc tgc ctg cgc gag gcg caa tac agc atg ctg gcg acc tgg	1433
Asn Gly Arg Cys Leu Arg Glu Ala Gln Tyr Ser Met Leu Ala Thr Trp	
395 400 405	
agg cgg cgc acg ccg cgg cgc gag gcc acg ctg gag ctg ctg gga cgc	1481
Arg Arg Arg Thr Pro Arg Arg Glu Ala Thr Leu Glu Leu Leu Gly Arg	
410 415 420	
gtg ctc cgc gac atg gac ctg ctg ggc tgc ctg gag gac atc gag gag	1529
Val Leu Arg Asp Met Asp Leu Leu Gly Cys Leu Glu Asp Ile Glu Glu	
425 430 435	
gcg ctt tgc ggc ccc gcc gcc ctc ccg ccc gcg ccc agt ctt ctc aga	1577
Ala Leu Cys Gly Pro Ala Ala Leu Pro Pro Ala Pro Ser Leu Leu Arg	
440 445 450 455	
tgaggctgcg cccctgcggg cagctctaag gaccgtcctg cgagatcgcc ttccaacccc	1637
acttttttct ggaaaggagg ggtcctgcag gggcaagcag gagctagcag ccgcctactt	1697
ggtgctaacc cctcgatgta catagctttt ctcagctgcc tgcgcgccgc cgacagtcag	1757
cgctgtgcgc gcggagagag gtgcgccgtg ggctcaagag cctgagtggg tggtttgcca	1817
ggatgagggg cgctatgcct catgcccggt ttgggtgtcc tcaccagcaa ggctgctcgg	1877
gggcccctgg ttcgtccctg agcctttttc acagtgcata agcagttttt tttgtttttg	1937
ttttgttttg tttgtttttt aaatcaatca tgttacacta atagaaactt ggcactcctg	1997
tgccctctgc ctggacaagc acatagcaag ctgaactgtc ctaaggcagg ggcgagcacg	2057
gaacaatggg gccttcagct ggagctgtgg acttttgtac atacactaaa attctgaagt	2117
taaaaaaaaa aaaaaaagga attc	2141

<210> 27
 <211> 455
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: human TNF-R in
 1TNF-R2

<400> 27
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 1 5 10 15
 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
 20 25 30
 His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
 35 40 45
 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
 50 55 60
 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
 65 70 75 80
 Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
 85 90 95
 Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
 100 105 110
 Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
 115 120 125
 Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
 130 135 140
 Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
 145 150 155 160
 Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
 165 170 175
 Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
 180 185 190
 Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
 195 200 205
 Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
 210 215 220
 Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
 225 230 235 240
 Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu

<400> 28

Asp Ser Val Xaa Pro Gln Gly Lys Tyr Ile His Pro Gln
1 5 10

<210> 29

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: N-terminal
amino acid sequence of protein purified from urine
(subsidiary sequence)

<220>

<221> UNSURE

<222> (7)

<223> identity of "Xaa" could not be determined

<400> 29

Leu Val Pro His Leu Gly Xaa Arg Glu
1 5

<210> 30

<211> 151

<212> DNA

<213> Homo sapiens

<400> 30

caggggaaaa tattcaccct caaataattc gatttgctgt accaagtgcc acaaaggaaa 60
ctacttgtag aatgactgtc caggcccggg gcaggatacg gactgcaggg agtgtgagag 120
cggctccttc acagcctcag aaaacaacaa g 151

<210> 31

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 31

Asp Ser Val Cys Pro Gln Gly Lys
1 5

<210> 32

<211> 7

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<220>
<221> UNSURE
<222> (1)..(2)
<223> identity of "Xaa" could not be determined

<400> 32
Xaa Xaa Leu Ser Cys Ser Lys
1 5

<210> 33
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 33
Asp Thr Val Cys Gly Cys Arg
1 5

<210> 34
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 34
Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys
1 5 10

<210> 35
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 35
Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys
1 5 10

<210> 36

<211> 13
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: TNF-BP tryptic
 cleavage peptide

 <220>
 <221> UNSURE
 <222> (6)
 <223> identity of "Xaa" could not be determined

 <220>
 <221> UNSURE
 <222> (10)..(12)
 <223> identity of "Xaa" could not be determined

 <400> 36
 Tyr Ile His Pro Gln Xaa Asn Ser Ile Xaa Xaa Xaa Lys
 1 5 10

 <210> 37
 <211> 14
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: TNF-BP tryptic
 cleavage peptide

 <400> 37
 Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn Asn Lys
 1 5 10

 <210> 38
 <211> 8
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: TNF-BP tryptic
 cleavage peptide

 <400> 38
 Leu Val Pro His Leu Gly Asp Arg
 1 5

 <210> 39
 <211> 15
 <212> PRT
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: TNF-BP tryptic cleavage peptide

<400> 39

Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg
1 5 10 15

<210> 40

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic cleavage peptide

<400> 40

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln
1 5 10

<210> 41

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic cleavage peptide

<220>

<221> UNSURE

<222> (9)..(11)

<223> identity of "Xaa" could not be determined

<400> 41

Glu Met Gly Gln Val Glu Ile Ser Xaa Xaa Xaa Val Asp
1 5 10

<210> 42

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic cleavage peptide

<400> 42

Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp
1 5 10 15

Thr Val Cys Gly
20

<210> 43
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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cleavage peptide

<220>
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<222> (6)
<223> indentity of "Xaa" could not be determined

<220>
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<222> (18)
<223> identity of "Xaa" could not be determined

<400> 43
Tyr Ile His Pro Gln Xaa Asn Ser Ile Cys Cys Thr Lys Cys His Lys
1 5 10 15

Gly Xaa Tyr

<210> 44
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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cleavage peptide

<220>
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<222> (16)..(17)
<223> identity of "Xaa" could not be determined

<400> 44
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Xaa
1 5 10 15

Xaa Arg

<210> 45
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: TNF-BP tryptic

cleavage peptide

<400> 45

Leu Cys Leu Pro Gln Ile Glu Asn

1

5

<210> 46

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<220>

<221> UNSURE

<222> (7)

<223> identity of "Xaa" could not be determined

<400> 46

Gln Asn Thr Val Cys Thr Xaa His Ala Gly Phe Phe Leu Arg

1

5

10

<210> 47

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 47

Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn

1

5

10

<210> 48

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 48

Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln

1

5

10

<210> 49

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 49

Gln Gly Lys Tyr Ile His Pro
1 5

<210> 50

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization
probe

<400> 50

caaggtaa atattcatcc

20

<210> 51

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization
probe

<400> 51

cagggt aagt acatccatcc

20

<210> 52

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization
probe

<400> 52

caaggtaa atatacatcc

20

<210> 53

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization

probe

<400> 53
caaggcaa atattcatcc 20

<210> 54
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: hybridization
probe

<400> 54
cagggcaagt acatccaccc 20

<210> 55
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: hybridization
probe

<400> 55
caaggcaa atatacatcc 20

<210> 56
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: hybridization
probe

<400> 56
caaggaaa atattcatcc 20

<210> 57
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: hybridization
probe

<400> 57
cagggaaagt acatccaccc 20

<210> 58
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: hybridization
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 <400> 58
 caaggaaaat atatacatcc 20

 <210> 59
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
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 <400> 59
 caagggaaat atattcatcc 20

 <210> 60
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 <210> 61
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 <212> DNA
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 <220>
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 <400> 61
 caagggaaat atatacatcc 20

 <210> 62
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 62

Glu Cys Gly Ser Gly Ser Phe Thr Ala Ser Glu Asn Asn Lys
1 5 10

<210> 63

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 63

Glu Cys Gly Ser Gly Ser Phe Thr Ala Ser Cys Asn Asn Lys
1 5 10

<210> 64

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 64

Phe Thr Ala Ser Glu Asn Asn Lys
1 5

<210> 65

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic
cleavage peptide

<400> 65

Phe Thr Ala Ser Cys Asn Asn Lys
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<210> 66

<211> 30

<212> DNA

<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: hybridization
 probe

<400> 66
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<210> 67
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: hybridization
 probe

<400> 67
 aagtggcgta gtcttttggt gttcctaggg 30

<210> 68
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: hybridization
 probe

<400> 68
 aaatgtcgga gactcttggt gttcctaggg 30

<210> 69
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: hybridization
 probe

<400> 69
 aaatgacggt cactcttggt gttcctaggg 30

<210> 70
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: hybridization
 probe

<400> 70

aagtggcggt ctcttttggt gttcctaggg

30

<210> 71

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization
probe

<400> 71

aaatgtcggg cactcttggt gttcctaggg

30

<210> 72

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization
probe

<400> 72

aaatgacgga gaacattggt gttcctaggg

30

<210> 73

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization
probe

<400> 73

aagtggcgta gtactttggt gttcctaggg

30

<210> 74

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization
probe

<400> 74

aaatgtcggg gaacattggt gttcctaggg

30

<210> 75

<211> 30

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: hybridization probe

 <400> 75
 aaatgacggt caacattggt gttcctaggg 30

 <210> 76
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: hybridization probe

 <400> 76
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 <210> 77
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: hybridization probe

 <400> 77
 aaatgtcggt caacattggt gttcctaggg 30

 <210> 78
 <211> 158
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> CDS
 <222> (1)..(153)

 <400> 78
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 Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Ser Cys Thr Lys
 1 5 10 15

 tcg cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag 96
 Ser His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln
 20 25 30

 gat acg gac tgc agg gag tgt gag agc ggc tcc ttc aca gcc tca gaa 144
 Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu

35

40

45

aac aac aag gatcc
Asn Asn Lys
50

158

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<210> 79
<211> 51
<212> PRT
<213> Homo sapiens
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<400> 79
Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Ser Cys Thr Lys
1 5 10 15

Ser His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln
20 25 30

Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu
35 40 45

Asn Asn Lys
50

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<210> 80
<211> 26
<212> DNA
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: PCR primer
EBI-1786
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<400> 80
ggaattcagc ctgaatggcg aatggg 26

```
<210> 81
<211> 25
<212> DNA
<213> Artificial Sequence
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```
<220>
<223> Description of Artificial Sequence: PCR primer
EBI-1729
```

```
<400> 81
cctcgagcgt tgctggcggt tttcc 25
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```
<210> 82
<211> 23
<212> DNA
<213> Artificial Sequence
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<220>
 <223> Description of Artificial Sequence: PCR primer
 EBI-1733

 <400> 82
 ggtcgacatt gattattgac tag 23

 <210> 83
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: PCR primer
 EBI-1734

 <400> 83
 ggaattccct aggaatacag cgg 23

 <210> 84
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: mutagenesis
 primer EBI-1751

 <400> 84
 gtacttgaac tcgttcctg 19

 <210> 85
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: mutagenesis
 primer EBI-1857

 <400> 85
 ggcaagggca gcagccgg 18

 <210> 86
 <211> 53
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 oligonucleotide EBI-1823

 <400> 86

agcttctgca ggtcgacatc gatggatcgg tacctcgagc ggccgcgaat tct 53

<210> 87

<211> 54

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:
oligonucleotide EBI-1829

<400> 87

ctagagaatt cgcggccgct cgaggtaccg gatccatcga tgtcgacctg caga 54

<210> 88

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide EBI-1820

<400> 88

agctctagag attcgcggcc gctcgaggta ccggtatccat cgatgtcgac ctgcagaagc 60

ttg

63

<210> 89

<211> 64

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide EBI-1821

<400> 89

ctagcaagct tctgcaggtc gacatcgatg gatccggtac ctcgagcggc cgcgaattct 60

ctag

64

<210> 90

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
EBI-1986

<400> 90

caggatccga gtctcaaccc tcaac

25

<210> 91
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer
EBI-1929

<400> 91
gggaattcct tatcaattct caatctgggg taggcacaac ttc 43

<210> 92
<211> 81
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer
EBI-2452

<400> 92
cacagtcgac ttacatttgc ttctgacaca actgtgttca ctagcaacct caaacagaca 60
ccatgggcct ctccaccgtg c 81

<210> 93
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer
EBI-1922

<400> 93
gaggctgcaa ttgaagc 17

<210> 94
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer
EBI-2316

<400> 94
attcgtgcgg cgcctag 17

<210> 95

<211> 17
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
EBI-2467

<400> 95
gtcggtagca ccaagga

17

<210> 96
<211> 17
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: M13-40
universal primer

<400> 96
gttttcccag tcacgac

17

<210> 97
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
EBI-2112

<400> 97
gtccaattat gtcacacc

18

B3
cont